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919·r27 Cooper (H. S.): Fiji, its resources and prospects. (With map.) 1879.

FIJI:

ITS RESOURCES AND PROSPECTS.

BY

H. STONEHEWER COOPER.

WITH MAP.

LONDON:
G. STREET & Co., 30, CORNHILL, E.C.
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good, the ordinary diseases common to the tropics being absolutely unknown. The average heat in Levuka, the present capital, is 79°, but this is tempered all the year round by the cool S.E. trade winds; and this remark applies not only to Levuka, which is exceptionally hot, but to the entire group. Levuka is situated on the east side of the island of Ovalau (one of the most central of the group), which is about 8 miles long by 7 wide.

Levuka, the capital of Polynesia, is no penal settlement for those who enjoy the society of ladies and gentlemen. Levuka boasts three or four good hotels, a club, a first-rate mechanics' institute, with a capital library; has a cricket, two boating and yacht clubs, a horse-racing ditto, a rifle association, and a dramatic society. There is a well-conducted hospital, and Anglican, Roman Catholic, and Wesleyan churches. Its white population is only 700, so it is evident that it is not social enterprise that my friends, the Levukans, are wanting in.

The principal islands of the group are Viti Levu, which is about 100 miles long by 40 miles broad, and possesses three splendid navigable rivers, the Rewa, the Sigatoka and the Ba, the two first of which can be ascended in good sized craft for over ninety miles from the sea. Vanua Levu is about 120 miles long, with an average breadth of twenty-five miles, and possesses in Savu Savu Bay a most magnificant anchorage. Taviuni, called the garden of Fiji, has a coast line of sixty miles, the centre being nearly 3,000 feet above sea level, and has at its summit a lake, probably the crater of an extinct volcano. Kandavu is seven miles wide and twenty-six long. The other centres for white men are Koro (where there is a flourishing arrowroot plantation) Loma Loma (or Vanua Balava), Mango (which grows some of the finest cotton in the world), Lakemba and Chichia. The future seat of Government, Suva, is situated to the South East of Viti Levu at the head of a most magnificent harbour. Of the soil I will speak further on. There are extensive ranges of mountains in both Viti Levu and Vanua Levu, in some cases attaining an altitude of 4,000 feet. These mountains can, however, all be turned to the most profitable account, as when dealing more especially with the resources of the group I shall have occasion to show. I preface that part of my subject by saying that cotton, the cocoanut tree, peppers of all sorts, candle nuts (*aleurites triloba*) cinnamon bark, turmeric, croton plant, tapioca, twenty-five varieties of plantains, yams, taro, limes, shaddocks, pine apples, oranges, lemons, bananas, ginger, nutmegs, annatto, sugar cane, all grow wild. India rubber is found all over the island of Vanua Levu. Ipecacuanha grows wild in all the low lands. The dye barks, of which there is a comparatively speaking inexhaustible supply, are considered of much value. Due comparison of the foregoing statement of facts and the subjoined statistics will convince anyone that the trade of the group is entirely in its infancy. The imports into Levuka for 1876 amounted to £95,446. 13s. 3d., the exports for the same year to £103,459. 0s. 3d.

(including produce to the value of £23,189 imported to be exported). The imports of 1877 were £134,688. 12s. 5d. while the exports for the same period were £140,893. 11s. of which £28,504. 10s. represented produce brought to Levuka from outside groups for transportation to the Australian Colonies or Europe. An analysis of the import tables for the year 1877 shews the following Drapery figures to the amount of £45,199. 17s. as against £28,901. 6s. 1d. in the preceding year. Hardware comes next, being represented by £14,350. 19s. 8d., the imports of this class of goods being only £9,782. 8s. 4d. in 1876. The other imports are of the ordinary colonial description, embracing as they do all the requirements of a new settlement, from wines and spirits to live stock and machinery. The natives, who are now a quiet and docile race are gradually becoming more assimilated to our standard, and every year will see their wants develop. The recent impetus given to Polynesian trade has enriched to a certain extent the few planters already tilling the soil, and each succeeding year may be expected to shew a marked increase in imports for the group. Moreover it should be clearly borne in mind that Levuka as the capital of Fiji, is more and more becoming the commercial centre of Polynesia. The interest of my readers and all those anxious to learn something of the capabilities of this wondrous archipelago will naturally lie in the direction of the exports, and these I give in extenso.

VALUE OF EXPORTS FROM THE PORT OF LEVUKA FOR THE YEARS 1877, 1876, 1875.

Articles.	Whither exported.	Value.		Total—1877.		Total—1876.			Total—1875.		
		£	s.	£	s.	£	s.	d.	£	s.	d.
Arrowroot ..	Auckland	232	0								
	London ..	80	0								
	Sydney ..	188	0	500	0	281	0	0			
Beans	Auckland	80	0								
	Sydney ..	40	0	120	0	66	0	0			
Beche-de-mer ..	Sydney ..	3,500	0	3,500	0	2,491	0	0	3,407	0	0
Candlenuts ..	Hamburg	390	0								
	London ..	2,650	0	3,040	0	1,562	9	0	65	0	0
Canes	London ..	10	0	10	0	....			13	10	0
Cocoanuts ..	Auckland	93	0								
	London ..	4	0								
	Melbourne	0	10								
	Sydney ..	292	10	390	0	252	0	0	55	15	6
Coffee	Hamburg	168	0	168	0						
Copra	Falmouth	18,625	0								
	Hamburg	30,493	15								
	London ..	9,112	10								
	Sydney ..	8,125	0	66,356	5	41,908	10	0	35,853	0	0
Cordials	Samoa ..	32	0	32	0						
Cotton	Auckland	1,080	0								
	Hamburg	1,160	0								
	London ..	2,500	0								
	Sydney ..	9,400	0	14,140	0	12,022	10	0	25,106	0	0
Cotton seed ..	London ..	1,261	0								
	Sydney ..	739	0	2,000	0	30	0	0	2	10	0
Curios	Auckland	36	0								
	Hamburg	97	0								
	London ..	404	0								
	Sydney ..	63	0	600	0	131	0	0			
Fibre	Auckland	130	0								
	London ..	40	0								
	Sydney ..	2,490	0	2,660	0	2,727	0	0	1,796	10	0
Fruit	Auckland	140	0								
	Sydney ..	180	0	320	0	106	10	0	97	10	0
Fungus	Sydney ..	500	0	500	0	191	0	0	800	0	0
Gum	London ..	75	0	75	0	15	0	0	20	0	0
Hides	Auckland	18	0								
	Sydney ..	47	0	65	0	50	0	0	31	5	0
Carried forward		94,476	5	94,476	5	61,833	19	0	67,248	0	6

VALUE OF EXPORTS—*continued.*

Articles.	Whither exported.	Value.		Total—1877.		Total—1876.			Total—1875.		
		£	s.	£	s.	£	s.	d.	£	s.	d.
Brought forward	....	94,476	5	94,476	5	61,833	19	0	67,248	0	6
Mats	London ..	10	0								
	Tonga .	100	0	110	0	2	0	0			
Maize	Auckland	6,245	0								
	Sydney ..	240	0	6,485	0	8,464	19	0	10,940	6	0
Molasses ..	Auckland	12	0								
	London ..	158	0	170	0	30	0	0			
Oil (Cocoanut)	Sydney ..	940	0	940	0	672	0	0	1,837	0	0
Peanuts	Auckland	956	0								
	London .	140	0								
	Sydney ..	1,904	0	3,000	0	456	0	0	292	0	0
Plants	London ..	5	0	5	0	11	0	0			
Sandalwood ..	Auckland	5	0								
	Tonga ..	20	0	25	0	100	0	0	302	0	0
Sharkfins ..	Sydney ..	110	0	110	0	85	0	0	45	0	0
Shell (Pearl) ..	London ..	915	0								
	Sydney ..	85	0	1,000	0	1,095	10	0	1,028	0	0
Shell (Tortoise)	Hamburg	75	0								
	London ..	125	0								
	Sydney ..	50	0	250	0	414	2	3	270	0	0
Sinnet	....	....		....		335	0	0			
Skins	Auckland	15	0								
	Sydney ..	45	0	60	0	202	10	0	277	0	0
Sugar	Auckland	5,160	0								
	Sydney ..	9,281	0								
	Tonga .	59	0	14,500	0	9,036	0	0	3,245	0	0
Tallow	....	....		....		....			5	0	0
Timber	London ..	1,200	0	1,200	0	3	0	0			
Tobacco	....	....		....		....			90	0	0
Wood	Auckland	80	0								
	Sydney ..	170	0	250	0	149	0	0	101	0	0
Total value of Exports from the Port of Levuka.. ..		122,581	5	122,581	5	82,890	0	3	85,680	6	6
Value of produce imported into the Colony and re-shipped at Levuka		....		26,671	10	22,673	0	0	16,460	0	0
Value of Colonial produce exported from Levuka ..		....		95,909	15	60,217	0	3	69,220	6	6

The apparent falling off in the total exports of 1876, is accounted for by the fact, that towards the end of that year, produce was stored up in Levuka to be shipped early in 1877 by Europe bound vessels.

RETURN OF PRODUCE IMPORTED INTO THE COLONY AND RE-EXPORTED FOR THE YEAR ENDING 31st DECEMBER, 1877.

Articles.	Value. £	s.	d.	Whence imported.	Whither exported.
Beche-de-mer	62	10	0	Line Islands ..	Sydney
Coffee	112	0	0	Tonga	Falmouth
Copra	1,162	0	0	Futuna	Sydney and Falmouth
	125	0	0	Rotumah ..	Sydney
	21,937	10	0	Tonga	Falmouth & Hamburg
	125	0	0	Savage Island	Sydney
	475	0	0	New Hebrides	Falmouth & Hamburg
	937	10	0	Line Islands ..	Falmouth & Hamburg
Cotton	240	0	0	Tonga	Falmouth & Hamburg
	60	0	0	Savage Islands	Falmouth & Hamburg
Fungus	9	0	0	Line Islands ..	Sydney
	180	0	0	Savage Islands	Sydney
	230	0	0	Tonga	Sydney
Oil (Cocoanut)	90	0	0	Line Islands ..	Sydney
	810	0	0	Rotumah ..	Sydney
Pearlshell ..	6	0	0	Tonga	Hamburg
Sharkfins ..	110	0	0	Line Islands ..	Sydney
	26,671	10	0		

The Total Exports to Germany from Fiji in 1877 were as under :—

	£	s.	d.
Candle Nuts	£390	0	0
Coffee	280	0	0
Copra	72,968	15	0
Cotton	1,460	0	0
Tortoiseshell	75	0	0
	£75,173	15	0

out of a total of exports of £122,581. 5s. It would be needless to remark on such figures.

In regard to these tables it should be noticed that only the exports from Levuka are stated, those from the minor ports of Lo na Loma, Kandavu, or Savu Savu Bay have not been reckoned. The most significant fact in these figures is the remarkable advance in sugar. From £3,245 in 1875 it rose to £14,500 in 1877. Then again take Copra (or the dried kernel of the cocoa nut), which in 1875 was represented by £35,853, amounted in value to £66,356. 5s. in 1877. Candle nuts also show a marked increase, but as regards Fiji the question really resolves itself into this, not what the group has done, but what it can do with British capital, energy, and brains combined. The falling off in the exports of cotton shows not only that it no longer pays the planters to cultivate it to the same extent as formerly, on account of the low price now obtained in Europe, but coupled with the increase of other products, that they are turning their attention to other more profitable articles of export. Cotton, as king, is dead; but cotton will always hold a position, subordinate of course to the great items of the colony's future wealth—coffee, sugar, cocoa, cocoanut oil and tobacco.

NAVIGATION RETURNS, &c.

The following are the shipping statistics for the port of Levuka during the year 1877:—Nine steamers and 71 sailing vessels, having a gross tonnage of 16,516, entered the port, and eleven steamers and 70 sailing vessels, with a tonnage of 16,610 tons, cleared the port. The great majority of the European bound tonnage above named was in the hands of German firms, who despatched their vessels to Falmouth for orders or for Hamburg direct, and this strong German element will be more clearly appreciated by a careful examination of the export tables. I should add, Levuka possesses a good harbour. On the 31st December, 1876, I noticed eight square-rigged vessels loading in it, four of which were on the berth for Europe. Rates of insurance to London are the same as from New Zealand, *i.e.*, 25 per cent.

POSTAL ARRANGEMENTS.

A few hours after the arrival of the monthly San Francisco mail steamer at Sydney, a steamer of the Australian Steam Navigation Company is at once despatched to Levuka, where it remains about a week, returning in time to catch the homeward mail, *via* Brandisi. Thus Levuka is at present just sixty days journey from the metropolis of the Empire. Till 1877 it was possible to reach Fiji in less than forty days, the steamers of the Pacific Mail Company calling at Kandavu, about ninety miles from Levuka, where a local steamer made the necessary connection. But this was practically useless to the Fijian exporters of produce, and the present system is much preferred. The time is, however, not far distant, when the importance of Polynesia will necessitate the splendid steamers of the Pacific Mail Company calling at its capital, if even for mails only, as the loss of time caused by the detour to Sydney will then be deemed insupportable. An inter-insular steamer connects the various settlements to leeward and windward, and there is constant communication with Melbourne by a trading steamer, and with Auckland, New Zealand, and the neighbouring groups of Tonga and Samoa by sailing vessels.

REVENUE, &c.

The revenue is made up by customs duties, based on the tariff of New South Wales licences, and the taxes of the natives, who pay in kind instead of coin. These taxes chiefly consist of copra, candle nuts, fibre, cotton of the kidney variety, and *bêche de mer* (or sea slug) which are each year put up for public tender. The contractors have been hitherto Germans.

LAND.

I have already described the general characteristics of the land, and shall refer again to its extraordinary value, from a purely commercial point of view. Government land of good value is to be had in plenty, the upset prices ranging from 10s. to 30s. per acre. The land at latter price, has often river or sea frontage, sometimes both. Crown grants are issued. Large blocks of most valuable territory are now in the hands of people, who from want of funds can do nothing with them, and who would gladly sell at very reduced rates, should any employment suitable to their varied tropical experience be offered them. It would be unwise in this short summary to enter into further detail, but the suggestive facts above stated, are an index to a series of operations of the most extensive and profitable character, which only require capital and organization to bring about.

BANKING FACILITIES, &c.

The only Bank in existence in Polynesia, is a branch of the Bank of New Zealand, at Levuka. The currency of course is all in British sterling.

LABOUR.

Up to 1876 the demand was fairly met by Polynesians, but the wages offered in Fiji being low in comparison with Queensland, *i.e.*, £3 per annum as against £6, the demand greatly exceeded the supply, and to the far-sighted statesmanship of Sir Arthur H. Gordon, is due the fact that the Agent-General of Immigration was despatched to Calcutta for the purpose of securing the services of coolies, and the first ship with four hundred of these people on board, the *Leonidas*, is now on her way to Fiji. These men, engaged for five years, will cost a trifle over £12 per annum per head, including cost of passage both ways, food and clothing.

Should, however, Fiji wages be raised, and more systematic cultivation introduced, I do not hesitate to say, that Polynesian labour would be forthcoming to any reasonable extent. The labourers' reasons for preferring Queensland are shrewd enough. In Queensland, capital is in the main profitably employed. In Fiji it often happens that poor men are endeavouring to "run" large estates, which cannot be properly worked without plenty of cash. The moral is obvious. Good field labour at £12 per annum is anything but dear. In the Hawaiian group, coolies from Canton were getting £25 to £30 per annum, when I visited those islands in 1876.

PRESENT STATE OF TRADE.

Fiji is rapidly moving a-head, but those who have made a study of her marvellous resources, know full well what her right position is, and to that she must attain at no distant date, if British capital and enterprise were exerted on her behalf. A large number of the pioneer settlers, men whom it is impossible to refer to without feelings of admiration for their indomitable pluck, have been simply ruined by cotton planting and cotton speculations. Some of these have left the group, others have devoted their attention to copra manufacture, which requires little or no capital. A few with means have turned their attention to sugar or arrowroot; but the fact remains, that Polynesian trade is languishing from want of capital systematically applied, and until this want is supplied, the riches of the group will never be utilised for the world's convenience; and this is the feeling of the leading landowners themselves, and in evidence I quote the subjoined from a letter received by me a few days before I left the group, from one of the first firms in Fiji:—

"Throughout the whole group my firm has carefully selected during the past twenty years the best sites for every description of tropical agriculture, and the lowest estimate for our real estate, for which we shall receive Crown Grants, is 60,000 acres. To properly develop such an acreage, requires a capital beyond our means."

THE AGRICULTURAL WEALTH OF FIJI.

And now I come to my main point—the stores of tropical wealth in trees and plants that Nature has ready for our use in highly favoured Fiji. The Mauritius and West Indies of the Antipodes combined, it promises a richer future than the gold fields of Australia or California. This statement seems an exaggeration, but it is made on no second-rate authority. The Governor of Fiji, the Hon. Sir Arthur H. Gordon, acting in the best interests of the Colony (which owes him for this service a lasting debt of gratitude), solicited from John Horne, Esq., F.L.S., Director of the Botanical Gardens and Woods and Forests of Mauritius, a report on the capabilities of the group. That gentleman proceeded to Fiji, and the following is nearly all extracted from his report, which was published at Levuka in October last year. On such a report from such an authority, comment is needless:—

THE COCOA-NUT TREE.—It will be seen by reference to the Export Tables, that copra is the leading item of Fiji produce shipped from the islands, and on the production of copra Fiji may have said to have existed since the comparative failure of cotton some years since. In the cultivation of this valuable product of the cocoa-nut tree, the Hon. Jno. B. Thurston, Colonial Secretary, thus remarks in his report on the trade of the islands for the year 1876. "Along the margin of the sea in a bed of little else than coraline sand, the cocoa-nut tree grows to perfection; on the uplands also, as long as it is well within the influence of the sea breeze, it produces only a little less prolifically." Each tree in full bearing should produce about a hundred nuts per annum; about 6,000 nuts make one ton of copra, worth in Levuka about £14 per ton. The same number of nuts yield one ton and a fraction of fibre worth in Levuka about £15 per ton. The average number of trees to an acre is eighty, and they should be planted about twenty-five to thirty-five feet apart, according as the soil is rich or poor, exposure to wind, or the rain-fall of the district. The trees commence to bear at five years old, if well attended to, and should be in full bearing from the seventh to tenth year. Taking, therefore, the yield of nuts at 6,000 per acre, the copra and fibre together should give an annual return of £28 to £30 per acre. At present nearly the whole of the valuable fibre is simply thrown away. Copra making wants hardly any capital and little labour, care in the drying of tha kernels being the great thing. This is accomplished by Europeans by having hot air drying houses, the natives rely on the sun's rays. Copra is worth from £21 to £23 per ton in London, and a trifle more in Hamburg, while good cocoa-nut fibre fetches an equal sum. From copra is made the celebrated lubricator, cocoa-nut oil, while its refuse goes to enrich cattle feed, or forms the raison-d'être of those delicious cocoa-nut biscuits which we all know. Nuts can be purchased from the natives at about 25s. per 1,000. In Ceylon and other cocoa-nut countries, the copra is crushed on the spot into oil, and every bit of the fibre turned to account. The oil is shipped to London in puncheons, and is worth there about £38 per tun. I am of opinion that this example of Ceylon should be followed by Fiji, in the event of capital for the erection of machinery being introduced; as quite irrespective of European demands, the adjacent Colonies of Australia and New Zealand are increasing consumers of cocoa-nut oil. If proper machinery for the fibre were introduced, the present annual loss to the colony of something like £50,000 would be saved. The foregoing facts speak for themselves, and show what fortunes from the cocoa-nut tree alone are to be made in the Pacific.

Young plantations of the tree made by natives and whites are rising on all sides, but there is large room for extension. The cocoa-nut tree does not succeed very well in many parts of Viti Levu, and where it does grow on that island, it bears comparatively few nuts. This is owing to the ravages of a small caterpillar, which attaches itself to the undersides of the leaves, and eats their softer parts. The consequence is, that the leaves are unable to perform the functions assigned to them, and the tree is thereby weakened and unable to bear fruit, if it be not killed outright by the attacks of the insect. The actions of the caterpillar have been noticed upon the cocoa-nut trees growing in other islands of the group; but it is probable, that outside Viti Levu, birds or some antagonistic insect keep it in check. The whole subject demands enquiry, and it is very likely, that if such were given, a means would be discovered of destroying the insect altogether, or greatly diminishing the mischief done. If such was the case, the cocoanut tree could be indefinitely planted all over Viti Levu. Outside this island the fertility of this tree is something wonderful. The rapid strides made by the copra exports tells their own tale.

COTTON.—The long staple "Sea Island" cotton of Fiji is very well known. It fetched gold medals at Philadelphia in 1876, and Paris in 1878, but the prices it now fetches render it barely paying to the planter. The kidney variety is now planted by the natives, and realizes in this market about 8½d. per lb. Sea Island cotton seed is now an article of export, and while it costs next to nothing on a cotton estate, pays its cost of shipping handsomely, as it is worth £7 to £8 per ton in this market. There can be no doubt whatever that in many estates it would be more profitable to cultivate the sugar cane and manufacture sugar, than continue growing cotton. Most of the cotton land is well adapted for growing sugar cane, which would yield sugar to the value of at least £60 and upwards per acre for a yearly crop. It is thought by authorities, moreover, that cotton would grow well on the hill sides in the driest parts of Viti Levu, where coffee is not certain to succeed. The real wealth, however, of the group lies in the sugar cane, and for that subject and most of those that follow, I quote Mr. Horne ***verbatim et literatim.***

SUGAR.—Among tropical products the cultivation of the sugar cane, for the manufacture of sugar, holds a prominent place. Every visitor to Fiji (even from countries in which the sugar cane is the only plant cultivated to any extent) cannot fail being struck with the size, the healthy appearance and the rapidity of growth of the sugar cane in Fiji. These remarks do not only extend to the "pet" canes of the Fijians, which are to be found growing near the houses in every native town, but they are general, and applicable to the canes in the settlers' plantations, as well as to those planted by the Fijians for thatch, the neglected state of the latter plantations duly considered. The wild canes (*vicos*) of these islands are to the cane grower subjects of admiration. They suggest to him interesting ideas about the parentage of the sugar cane, which undoubtedly originated in the islands of the South Sea, where from time immemorial it has been cultivated by the inhabitants for various purposes, and carried to the islands and countries in the Eastern parts of tropical Asia by their inhabitants, when on migratory or piratical expeditions. An experienced cane grower would at once pronounce the so called "China cane" an imported *vico*, were he equally well acquainted with both. To him the varieties of the latter present all the various colours and habits of the numerous varieties of the cultivated sugar cane; but it yet remains for a careful botanical examination and comparison of the flowers of both to pronounce the *vico* of Fiji a species of the genus saccharum or not. From the foregoing it will be noted that the climate of Fiji is by its nature well adapted for growing the sugar cane, and so is the soil. This in most places is rich alluvium on the banks of the rivers, loam on gentle slopes and hillocks, volcanic soils of the richest descriptions, and at the bases of low hills *debris* brought down by innumerable agencies from the sides of the mountains.

The cane lands do not exist in any one part of Fiji in particular. They are to be found in all parts of the group. In the far interior of Viti Levu, as well as at the mouths and on the banks of the Rewa, Navua, Sigatoka, and other rivers. In many different localities of Vanua Levu, Taviuni, Rabi, &c. Even in Ovalau, and some of the other smaller, although, in this respect, not less important islands of the group. The extent and richness of these lands in conjunction with a climate extremely favourable for growing and maturing the sugar cane, ought to make all well-wishers of Fiji long for the time when sugar will be made in it and *exported by the hundred thousand tons, and to the value of millions of pounds sterling.*

Before such results are brought about, the capitalist or sugar maker will see that it will tend to his advantage to encourage the planter to grow sugar cane; and the planter to see that it will be to his profit to have a cane mill near to his property, if not on it. The steam and common plough will be extensively used, as well as the grubber, drill, harrow and horse hoe on rich alluvial flats. The pick, spade, or Indian hoe will be in request to pit on hilly land, to put down a cane top where a cane plant will grow. All mechanical contrivances, as well as hand labour, will be needed to till the soil, and fertilizing manures to renew its fertility. The canes will be cut at the proper season of the year instead of "cutting all the year through," as at present. This practice is really a waste of products, which even expediency can scarcely excuse. About one half of the canes are crushed when the density of their juice is at the lowest, and therefore yield a minimum amount of sugar. The canes are cut at the end of the warm weather instead of at its commencement. The warm wet season is the natural time of the year for the canes growing, and the cold one for maturing them for the crop in the months of September, October, November, and perhaps December. When cut in March, or April, the ratoon canes are made to grow in cold dry weather, when they will *grow least*, and to ripen duridg the hot moist weather of December, January, February, and March, when they will naturally *grow most* and ripen least. Such practice is "contre saison," and against nature, and the want of success and small returns are not surprising. By cutting the canes during the months above mentioned, namely, September to December, the ratoons grow in the proper season, *i.e.*, the warm and wet one, and the canes ripen during the cold one. "The crop" is made when the density of the juice is at the highest, and the canes yield most sugar.

It may be said that the best kind of cane to grow is the one which yields a maximum quantity of sugar, and gives a minimum amount of work, in cutting, carting, crushing, and in making sugar out of its juice. At the same time such a cane must be hardy and healthy, grow rapidly, ratoon freely and often, and be well suited to the climate of the locality in which the plantation may be situated. Many of the canes grown in Fiji possess these latter qualifications, and appear to be short of the former ones. In a word, they give a maximum amount of work in cutting, &c., and yield a minimum quantity of sugar. The desired result is not the greatest weight of cane which an acre of land will produce; but the greatest amount of sugar per acre which the cane will yield.

COFFEE.—In Fiji there is a large extent of land which, from a variety of causes, is better adapted for growing coffee than any other tropical product. The greater portion of this land lies in the interior of Viti Levu, Vanua Levu, Taviuni, some portions of Rabi, Ovalau, &c. These islands contain large areas of almost incomparably fine *coffee land*, and enjoy a climate which is at once healthy and well adapted for the growth of the coffee tree, plant, or bush. Next to cane growing, that of coffee will in future years claim a large share of attention. Coffee growing is now in its infancy in Fiji. It will yearly extend, and become an important product of these islands. Coffee will be second to none except sugar in value. ***Its export value should ultimately attain to about a million and a half or to two millions sterling.*** The plants of coffee seen in the interior of Viti Levu, Vanua Levu, and Taviuni, were remarkably healthy-looking. Indeed the healthy appearance of the plants prove that coffee will succeed in Fiji beyond a doubt.

The Government have sent large supplies of coffee seed into the interior of Viti Levu, to form coffee gardens for the natives. If it were for no other object than to show the sceptic how coffee will succeed in the interior of Viti Levu, this action of the Government would be highly commendable. Coffee has been tried during the last ten or eleven years in several islands of the group. However, it is only within the last two or three years that much attention has been given to its culture. Several plantations have been formed, and land for others is now being cleared. Although success cannot be doubted, it would be a wise precaution not to plant coffee in places which face the trade winds—that receive its full force, unbroken, and directly from the sea—without well protecting the plants by dense "breakwinds" of hardy trees and shrubs.

COCOA.—The soil and climate of some parts of Fiji are well fitted for growing cocoa—*Theobroma Cocoa.* The places where the most of these lands lie have been noticed and need not be repeated, here. However, lands equally as favourable as those alluded to for growing cocoa, are to be found in large and small patches in many parts of Fiji.

There are very few plants of the cocoa at present in Fiji, and none of them have arrived at a fruit bearing age. It will most likely be sometime before any extensive plantations of it are made in Fiji. This is not alone owing to a want of knowledge of the treatment required by the plant and the making of chocolate, but is more especially owing to the difficulty and expense of procuring a sufficient number of young plants to make a fair trial.

This is one of those subjects which would do good to any Government for taking up, and particularly that of a country whose wealth lies solely in its agricultural products. The more varied these are, the less will be the distress which a season of failure or low prices, would certainly cause, if the welfare of the community depended upon one kind of crop. About fifty plants of each of the best variety of the Theobroma cultivated in South America and the West Indies, would, in a few years, yield sufficient young plants to stock Fiji. These young plants, if need be, might be sold at a low price to pay expense of rearing and of introduction. Such, in a new colony like Fiji, would be of the greatest importance. The same might be said of many other kinds of plants, the introduction of which would be a benefit to the community. It is one of many reasons which could be forcibly brought forward for the establishment of a Botanical Garden in the Colony. The principle has been applied in several Colonies, in all of which it has well answered its purpose, and no reason for its non-success in Fiji can be brought forward.

TEA AND CINCHONA.—Next in importance to a large introduction of Theobroma plants, would be that of Tea and Cinchona. The soil and climate of some parts of the interior of Viti Levu, more especially of the mountains at the sources of the principal rivers, are well qualified for the culture of these. Roughly estimated, the extent of country in which Tea and Cinchona could be successfully cultivated, is not less than one hundred square miles.

TOBACCO. Tobacco also grows well in Fiji. But the want of knowledge in the preparation of its leaves for the market is the main reason for it not being more extensively planted than at present. This difficulty will most likely be overcome, and in Fiji itself.

The above may be termed the principal articles of tropical produce which will succeed in Fiji, and there remain only those which may be styled of secondary importance, to be alluded to.

OTHER AND MINOR PRODUCTS.—They are Rice, Indian Corn, Arrowroot, Tapioca. The last three are grown, and the first to some extent. The Arrowroot and Tapioca manufactured are of excellent quality. It scarcely requires a prophet to foresee that they will be ousted by the sugar cane. As regards Rice, there is no doubt that it could be extensively grown in Fiji. Many places are as if they were fitted by nature for its cultivation, and others could be easily laid out for the purpose. The Clove, Ginger, Cinnamon, Nutmeg, Allspice, Pepper, Camphor, Vanilla, will also grow successfully in this highly favoured country. To cultivate all or any of these with any degree of success, the cultivator should possess a considerable amount of experience.

Most of the settlers in Fiji have little or no knowledge of the culture required by different sorts of tropical produce. Being the first in the Colony, they have been groping in the dark, or with lights picked from books. To say that all have succeeded in the application of theories derived from books would be incorrect; nevertheless, it is true that some have done so, and are now on a fair way to a competency, if not to a fortune.

FRUITS.—Among fruits which would be likely to succeed in the parts of this Colony which enjoy a temperate climate, the Peach and the Strawberry may be mentioned. The Orange tribe thrives magnificently in all parts of the group, and the oranges at Namosi well deserve praise for their excellent quality. Bananas and Pine Apples of good quality abound everywhere. The former are grown extensively by the Fijians as an article of sustenance.

To say that the Mango, Sour Sop, Sweet Sop, Custard Apple, Chermoyier, Jack, Carambol, Bilimbi, Wampee, Rambutan, Lichee Tamarind, and perhaps the Mangosteen and Durian, will grow in Fiji, is akin to repeating a truism. There is every probability that the time is not far distant when Fiji will be extensively exporting tropical fruit to the markets of Australia and New Zealand. That it will pay to grow PineApples, Bananas, Oranges, &c., on a large scale for those markets there can be no doubt.

Geographically, Fiji occupies a most enviable position. Situated within the tropics, she is about from six to eight days steaming from Australia and New Zealand, where the demands for her produce are extensive and increasing. From the bountiful nature of the soil, and the favourable climate, she will successfully compete in these markets with all rivals, not excepting the tropical parts of Australia. It is to Australia and New Zealand she has to look for a market for the most of her tropical products, and not to the markets of Europe, from which she is far distant. It will be a long time before her produce overstocks the markets of Australia and New Zealand. When that time comes, if it should come, it will be easy for her to send the surplus sugar, coffee, &c., to the Western States of America rather than to Europe.

What Fiji at present requires for the development of her resources is a steady stream of cheap and efficient labour, capital, and men skilled in tropical agriculture;—in the growth of the sugar cane, in the making of sugar, in growing coffee and tea, &c., and in the preparation of these for the market.

TIMBER.—In what may be termed silvan wealth, Fiji is also rich. But the quantity of useful timber is not so abundant as it would at first appear to the inexperienced to be. However, there is a sufficient quantity of home grown timber to meet the home demand for years to come were the importation of timber to cease. The Government will need to see that the forests of the country are not plundered. Pass useful laws for the protection of trees and forest reserves, in order to preserve a sufficient supply of timber for future generations:—to work these forest reserves for the benefit of the community:—to prevent an indiscriminate destruction of the forests throughout the length and breadth of the land, so that the country may not be parched by droughts one season, and desolated by floods the next :—to preserve the present healthiness and salubriousness of climate which Fiji is famed for : —to plant in order to restore to parts (north western portion of Viti Levu, Macuata, and in Vanua Levu,) the climatic causes from a want of which they grievously suffer. Government must do this for the welfare of the country and the community. The neglect of this in other colonies, until too late, is a warning to it to set the house in order without delay, and before all the land about the sources of the rivers are alienated or denuded of timber. A forest department would be self supporting by the sale of mature and dying timber, &c., from the land which it was necessary to keep trees upon; and the profits from which should be applied to planting where plantations were needed. This matter is by far too important to the community to be left in the hands of private individuals. Not that the Government will plant and preserve timber to compete and exclude private enterprise from a market for its produce. But it is necessary for climatic reasons that the Government should plant and preserve trees, and when these reach the mature stage of their growth, to see that they are not allowed to waste and rot. On the other hand, it is the interest of the community to see that the mature products of the Government reserves are properly utilized, and not wasted, and the Forest Department self-supporting.

Foremost in point of value among the silvan riches of Fiji is sandal wood, now, owing to indiscriminate cutting—in a word, destruction—very scarce. So much so that what remains will only serve as a nucleus from which seeds can be obtained for the extension of this much prized forest product. Among timber trees of the colony the foremost is Vesi (Afzelia bijuga) which yields a useful and durable timber which will vie with any other for strength or durability. It is now very scarce. Next is the dilo (Calophyllum inophyllum), valuable, not only on account of its useful timber, but also for the gum resin which exudes from the bark when the tree is wounded, and the oil that can be extracted from its seed. Good timber, the produce of this tree, is also very scarce.

Then in order there are Damanu, and Vai Vai (Calophyllum spectabile, and another species of the same genus ; and Seranthes myriadena, and another species of the genus) all of which yield excellent durable timber, fit for any purpose.

Dakua, Dammara Vitiensis, which, besides yielding a good and useful timber, better than many kinds of pine, and easily worked, gives a valuable gum resin, not inferior to kaurie gum. The timber which Dakua salusalu, Kau sola, Kau tabua, Lewininini, Kausia, (all different species of Podocarpus) produce is not inferior to that of the best pine, and equally useful. This short list might be easily added to were it needful.

The climate and soil of Fiji would exceedingly favour the growth of Teak, Sal, Mahogany, Ebony, Toon, Sisson, Rosewood, Guttapercha, Caoutchouc, Ratans, &c.; in fact any product of the tropical forests would succeed in Fiji. This should not be lost sight of.

Any tropical plant or tree which yields an article of high commercial value and utility, which Fiji does not possess, ought to be introduced and naturalized. This would also hold good in the instance of plants from abroad, which yield a superior article, or yield it in greater abundance than indigenous plants.

CAOUTCHOUC.—Besides timber-yielding trees of more or less value peculiar to the country, Fiji also possesses several trees which yield Caoutchouc of good quality and value. These although by no means scarce are, at present, too far apart for profitably collecting the juice. But if brought together, as they would be in a forest reserve, the juice would be easily collected at stated periods, and made into a mercantile commodity.

PLANTAINS.—As regards these, the Hon. Jno. B. Thurston, no mean botanist, reports:—The country abounds with plantains, of which the natives distinguish about twenty-five sorts. According to Seemann, the "Soaqua," a wild variety which grows in all the valleys, a few hundred feet above the level of the sea, is the *Musa troglodytarum*, the plant from which, says Sir John Bowring, in his work on the Philippine Islands, Manilla hemp is obtained. There is also a cultivated variety, named Vundi Vula, or white plantain, which, I think, is the *Musa textilis* of botanists. This variety yields a fine, bright and strong Manilla hemp. Samples sent by me to Sydney were valued at from £35 to £40 per ton, delivered there. The hemp is obtained from the stem or trunk of the plant. The fibre, obtained from the petioles of the leaves, is so fine that it is said the finest muslins may be made from it. The preparation of these fibres by hand is both a long and difficult process; and, in order to export them in any quantities, machinery must be imported. It is very probable that, with a little alteration, the machinery used in New Zealand for cleaning *Phormium tenax* might be adopted here for Manilla hemp. If the thick laminæ, of which the plantain stem is composed, were crushed between smooth or fluted rollers, the hard outer epiderm would be broken up, and the cellulose—of which there is a large quantity—might be got rid of by washing and beating. In the preparation of an article like this the services of women and children might be very largely engaged. The indigenous products can, to a large extent, be utilized at once. The fibre also of the yaka, the pine apple, and the aloe might be treated very much in the same way as New Zealand hemp. One variety of the arum is said to yield a very valuable fibre, and I am inclined to think there are many plants of a similar character not as yet generally known to settlers. Water privileges, to use an American term, are numerous in every district. An overshot water-wheel, made of durable hard wood, fitted with iron-work ready for erection, can be laid down in Levuka at a cost of from £70 to £100, according to size. "Devils" for preparing cocoa-nut fibre can be procured at about £50 each, or if contracted for in any number, perhaps for less. Machines for preparing Manilla fibre would cost about £25 each in Auckland. If erected in suitable places, I believe these machines would rapidly repay the expenditure incurred for their purchase, as the coir or cocoa-nut fibre now thrown away would then be all saved. Natives could soon learn to work the machinery above described when driven by a water-wheel, which is a simple and steady power. At Rambi, Lauthala, and Wakaya the imported labourers have been taught to manage the machinery, running at a rapid rate, and driven by steam power.

Candle Nuts.—I should add that these candle nuts (*aleurites triloba*) grow wild over all the group. By squeezing them in the hand the oil exudes, and this is equal to rape seed oil in value, *i.e.* from £30 to £35 per ton. The great difficulty has been in separating the nut from the kernel, but with proper machinery this would be soon obviated; at present, the shells are simply crushed by the natives with stones, and the kernels got at and shipped in bulk to England or Germany.

Indian Corn, &c.—Maize is being constantly exported to Australia and New Zealand, while Fiji rum is making for itself a home in the latter Colony.

Stock.—There are no indigenous animals in Fiji; a few snakes are found in some of the high lands, but these are perfectly harmless. Cattle and horses all thrive well. In one square mile at Vuna, Taviuni, there are four herds of cattle depasturing, and there are also some 300 sheep. The first parcel of Fijian wool was recently sent to Sydney for transhipment to England.

Such, then, is the Crown Colony of Fiji—such her unparalleled resources. Lying as the group does, right in the track of the great ocean route between Australasia and the ever-developing Pacific slope of the United States, distant only 1800 miles from Sydney, about 2000 miles from Melbourne, and 1200 miles from Auckland, New Zealand, what a field lies before the now barely noticed Archipelago. The colonies of New South Wales, Victoria, South Australia, Queensland, and New Zealand are advancing with rapid strides. Cities are springing up where shanties existed only a few years ago. Melbourne boasts a population of over 200,000, while Sydney follows close in her younger sister's wake. Of New Zealand it may be simply said that Sir Julius Vogel, by far-sighted and most brilliant statesmanship, has changed its history He gave it railroads; by those railroads he opened up its splendid tracts of undeveloped country, and he is now filling those tracts with people.

These young empires—these Britains of the South, are the natural goals for the tropical productions of Polynesia, and Fiji is the natural centre of those grand clusters of islands which dot the charts of the wide Pacific. The future of Fiji is indisputably bound up with the colonies, and as the colonies have been built up by the capital and enterprise of the mother country, so it must be with Fiji and the surrounding groups. To Sir Julius Vogel we owe the formulating of the grand idea of an Anglo-Saxon Polynesia; but in the limits of a pamphlet there is no space to dwell on a scheme of business-like statecraft on which a volume could be written. It is for English capitalists who prefer investments on British soil to Honduras bonds that these notes are hastily put together. It is no great credit to our countrymen that hitherto the trade of the Pacific has been one great German monopoly. The Hamburg house of Messrs. Godeffroy, now a limited company with a paid up capital of £250,000, has practically had Polynesia at its feet for more than twenty years. The fortunes made by men like Messrs. Hort Brothers & Brander, of Tahiti, the great successes attending the businesses of the Messrs. Wilkens of the same place, and the Messrs. Hedemann & Co., of Fiji and Samoa, with, comparatively speaking, very small capital are known all over the Pacific. These last-named gentlemen have been merely merchant traders. The systematic operations both in agriculture and commerce of the Messrs. Godeffroy & Co. in Samoa and elsewhere raise that firm almost to the level of a Pacific "East India Company." The Samoa group is the head quarters of that firm. Samoa, according to Commodore Wilkes, only boasts 1,650 square miles, a population of less than 40,000, is always the scene of native and European quarrels with constant consular interference; and yet, fostered by the influence of the Messrs. Godeffroy, the trade of that group in 1875 amounted in imports to £341,207 and exports to 226,895, while tonnage to the amount of 30,483 cleared the port of Apia during that period; mostly bound for Europe, and of which 22,963 tons sailed under the German flag. I can only say to my countrymen "better late than never"; but that we are very late indeed there can be no doubt. Trade should follow the flag; the Union Jack floats over the Fiji group, but the British capitalist is hugging his money bags regretting the very existence of Egypt or Peru. Fiji has no Emma mines, no salted diamond fields, no ship railroads to offer, but she has her sugar, her tobacco, her coffee, and her cocoa-nuts to give in exchange for machinery, brains and money. I will quote a case. I extract the following from a recent number of the *Fiji Times*: "In spite of droughts and other heavy drawbacks, the mills cannot overtake the supply of cane. Many planters have to see their crops rotting in the fields, the only two mills at work being totally inadequate to crush the cane, and men of means continue to refuse to reap the golden harvests offered. A mill of a decent capacity with proper management would without the slightest doubt be a magnificent investment. Planters would certainly make arrangements with a liberal mill owner to sell cane for a term of years, and thus would be insured a constant supply of the raw material to work on. Suppose a plant to cost £30,000, erected in a central position, the owners could well afford to buy cane at 25 per cent above the wretchedly low prices now paid, and would then be getting them much below the prices paid in other sugar countries. The prices here now are generally 10s. per ton of a density of 9 to 10 per cent., and 12s. for a density of 10 to 11 per cent. Very little cane is crushed under 9, and most at over 10 per cent. density. I imagine the average will be at about 11s. 6d, per ton. The value of cane per ton of sugar at above is to the grower £8. 16s. 3d., allowing 15 tons of cane to the ton of sugar, value of sugar £25 per ton, and the molasses or rum, in addition gives the mill-owner two-thirds for his share; surely the boot is on the wrong leg. I have it on good authority that in countries where mills are conducted on a proper business footing the growers of canes never get less than a half share of the product, and in most cases two thirds. In Natal I can vouch for the latter being the case. Of late years the sugar industry has very considerably increased there, and British capitalists have invested largely, and the concerns are paying well."

Here then is the inception of a business which would rapidly rival that of the Messrs. Godeffroy. The establishment of central mills for the crushing of sugar cane would be the first step. The purchase of suitable tracts of land and the cultivation of same under the direction of experienced men the second. As the colony becomes known and its resources valued these tracts might be let or sold to those anxious to duplicate in Fiji the fortunes their fathers made in Ceylon or the Mauritius, and the commercial agents for these immigrant planters, both as regards their imports and exports, would assuredly be the organization which bought them to the group. The judicious fostering of new experiments in tropical culture, and the introduction of all its needful appliances would not only be of incalculable benefit to the colony, but create a very large trade, and this extensive business as landowners, planters and merchants can only be efficiently carried out by a powerful Company. That it would pay, and pay well, is but a matter of administration.

A comparison of the price of land in Ceylon a few years ago, and the present time, will convince the most sceptical; and I have already referred to the ever-enlarging markets in Australasia for Polynesian produce.

The scope of operations must necessarily be a large one. The success of the East Indies, West Indies, Mauritius and Ceylon have all been obtained by the well organized efforts of large and powerful corporations, and if Great Britain is anxious to secure a fair share of the trade of Polynesia the course of action must be the same

In the interests not only of commerce, but of humanity, a substantial British trading company in the South Sea would be a blessing to the natives and well-intentioned whites. It would establish Fiji as the central home of the produce of some thousand islands; it would destroy once and for ever all illicit "labour trade;" and while earning for itself the reward of its enterprise, would confer benefits on the world, which it is impossible to exaggerate. British influence is rapidly on the increase in the Pacific: and, looking at the subject from every standpoint, I do not hesitate to say that one of the richest fields ever offered to the British public is now opened, and that a company such as I have shadowed out, amply provided with capital, ably directed, and served by competent men, would in a few short years as effectually rule a large portion of the lucrative trade of the innumerable islands of the South Pacific, as "John Company," in the days of his supremacy, controlled the entire commerce of Hindostan.

H. STONEHEWER COOPER.

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